

What is claimed is:

[Claim 1] 1. A method for implementing an adaptive mixing energy ratio in an image-editing environment, comprising the following steps:

- (a) applying at least one analysis technique to a session of video footage stored in a computer readable media for performing an analysis;
- (b) demarcating the session of video footage into a plurality of segments;
- (c) determining a mixing energy ratio for each of the plurality of segments according to the analysis;
- (d) interpolating the mixing energy ratio for each of the plurality of segments to produce a mixing energy ratio profile; and
- (e) applying the mixing energy ratio profile to the session of video footage.

[Claim 2] 2. The method of claim 1, wherein step (a) comprises applying at least an audio analysis technique to a session of video footage stored in a computer readable media for performing an analysis.

[Claim 3] 3. The method of claim 1, wherein step (a) comprises applying at least a video analysis technique to a session of video footage stored in a computer readable media for performing an analysis.

[Claim 4] 4. The method of claim 1, wherein step (a) comprises applying a plurality of analysis techniques to a session of video footage stored in a computer readable media for performing an analysis, the techniques being audio analysis techniques, video analysis techniques, or a combination of audio and video analysis techniques.

[Claim 5] 5. The method of claim 1, wherein step (b) comprises demarcating the session of video footage into a plurality of segments based on predetermined run-time lengths.

[Claim 6] 6. The method of claim 1, wherein step (b) comprises demarcating the session of video footage into a plurality of segments based on contents of the footage.

[Claim 7] 7. The method of claim 1, wherein the analysis returns predetermined parameters corresponding to properties of the footage for each of the plurality of segments.

[Claim 8] 8. The method of claim 7, wherein step (a) further comprises analyzing the footage with respect to predefined auditory patterns and non-predefined auditory patterns.

[Claim 9] 9. The method of claim 8, wherein the predefined auditory patterns include:

audio clips in an audio clip database including:

specific music melodies;

specific speech sentences;

specific sounds of living creatures; and

specific sounds of special events; and

manually defined audio segments.

[Claim 10] 10. The method of claim 8, wherein the non-predefined auditory patterns include:

speech in a quiet environment;

applause and laughter following a section of speech or music;
high-mood music;
spoken keywords;
stress placed on a specific section of speech;
a recognizable relationship between length of speech segment and tempo of music;
a recognizable relationship between tempo of speech segment and tempo of music;
a recognizable relationship between length of speech segment and musical passages; and
a recognizable relationship between length of speech segment and a space between musical passages.

[Claim 11] 11. The method of claim 7, wherein step (a) further comprises analyzing the footage with respect to predefined video patterns and non-predefined video patterns.

[Claim 12] 12. The method of claim 1, wherein the mixing energy ratio is a ratio of an audio energy of a first soundtrack to an audio energy of a second soundtrack.

[Claim 13] 13. The method of claim 12, wherein the first soundtrack is a speech soundtrack or a music soundtrack.

[Claim 14] 14. The method of claim 12, wherein the second soundtrack is a speech soundtrack or a music soundtrack.

[Claim 15] 15. The method of claim 12, wherein the first soundtrack and the second soundtrack each comprise a plurality of channels.

[Claim 16] 16. The method of claim 1, wherein step (c) comprises determining an average mixing energy ratio point for each of the plurality of segments.

[Claim 17] 17. The method of claim 1, wherein step (c) comprises determining a plurality of mixing energy ratio points for each of the plurality of segments.

[Claim 18] 18. The method of claim 1, wherein step (e) comprises applying an adaptive mixing energy ratio to segments of special interest and applying an average mixing energy ratio to remaining segments of the session of video footage.

[Claim 19] 19. The method of claim 1, wherein step (d) comprises interpolating the mixing energy ratio for each of the plurality of segments to produce a mixing energy ratio profile, the maximum gradient of the mixing energy ratio profile being limited according to a predefined limit.